1 Ongoing Processes (OP)

Ongoing processes may be performed often throughout a month but are not necessarily on a daily basis. These processes do not have any particular relationship to the other. They are stand-alone processes. A brief overview of each ongoing process is presented below.

Process #	Process Name	Brief Overview
OP 1	Change Control	The management of change is one of the project's most critical processes. This process defines how all change is tracked, reviewed, and approved.
OP 2	Configuration Management	This process defines the guidelines for ensuring that change is implemented correctly while minimizing the impact to the production user community.
OP 3	User Outreach and Follow-up	This process describes how information is obtained about each end user's specific job responsibilities and what Medi-Cal specific information end users are looking for on a regular basis. This is important to user support teams as they assist the user gain the best advantage from the available MIS/DSS environment.
OP 4	Training Intake and Class Preparation	This process defines the approach to providing user training and the means by which training is prepared.
OP 5	Resource Management (Tape Cartridges)	This process provides guidelines for ensuring consistent management of tape consumption on the project. This process also contains standards to guide the project team regarding how long to retain categories of project data.
OP 6	Resource Management (DASD)	This process describes the creation of DASD management reports used for detailing the content of each DASD pool, free space versus space used.
OP 7	Operations Issue Log	During the execution of test and production build and update activities, the operations team records problems encountered and their resolutions in an MS Access database developed for this purpose. This process describes how operational issues are recorded and tracked through to closure. Metrics from this log are included in the monthly dashboard reports.

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1 CHANGE CONTROL PROCESS

1.1 Overview

Change control means that all proposed changes to any aspect of the Medi-Cal MIS/DSS project:

- processes,
- product documentation,
- proprietary application (Product) software,
- system software and hardware, and
- customized data base structures and build software and processes

will be tracked and handled according to a strict process called the Investigation Request process or IR process. This process will help to ensure that change is documented and applied in a controlled manner with relevant project personnel well-informed from the point of initiation through to closure.

A key to successful application of this process is an understanding of how an IR is classified by type. There are only four types of IRs:

- Problem
- Change
- Change – No Cost to State
- Other

A 'Problem' is defined as an error in implementing the agreed upon design or specification (e.g. a program bug). A 'Change' is an enhancement to the agreed upon design that requires written notification from the Client Project Director, along with an agreed upon payment amount. A 'Change-No Cost to State' is also defined as a change, but MEDSTAT has agreed that there will not be a cost to the Client, as the change is considered 'routine' or within the scope of the contract. Finally, some IRs are considered of type 'Other', meaning that they fall into none of the above three categories. An example might be an Information-only OIL.

An automated tracking tool has been developed and made available to all members of the MEDSTAT project team for the purpose of tracking IRs. The DHS MIS/DSS project team has also developed a similar tool. The interface between the systems are paper documents (reports), with common information tracked separately in both systems.

The IR process/document serves as a historical record of MIS/DSS issues and problems, as well as an operational action plan for resolving problems. The IR contains data used

for tracking purposes (i.e. IR #, originator, date opened, type, priority, etc.), and specific content information such as:

- brief summary
- description which includes background and details about the identification and root cause of the problem, and/or how the problem was evidenced
- impact analysis which details any impact of the problem and/or proposed resolution upon MEDSTAT and other partner organizations.
- proposed resolution and action steps showing responsible person and due date to ensure resolution of the problem.

The IR is updated to reflect current status and to document actions completed or decisions made.

1.2 Purpose

The purpose of this document is to provide background and instructions for performing the Change Control process.

1.3 Scope

See the Purpose section. It does not include a detailed procedure for handling library management and the promotion process. This process can be found in the following documentation: Library Structure and Migration and Source Code Promotion and Approval processes.

1.4 Responsibility and Enforcement

The change control coordinators at MEDSTAT and at the client are responsible for maintaining this procedure and for its enforcement.

1.5 Policy Statement

See the Overview section.

1.6 General Considerations

1.6.1 Definition of Terms

Term	Definition
Actual Close Date	The date the IR receives a Status of Closed.
Actual Close Database	Database build or update in which the IR resolution was implemented.

Term	Definition
Application Software	Software customized specifically for the Medi-Cal MIS/DSS project as well as the proprietary product software developed and maintained by MEDSTAT, such as DataScan, Panorama View and the database conversion programs.
Approval (aka Approval Status)	A required field that has one of four values: • No Client approval required • Approved for Implementation • Not approved for Implementation • Pending approval The value is used to track whether Client approval has been granted to proceed with implementation of a given IR. Some IRs will not require Client approval. Those IRs that are approved, will also have a date of approval stored in the IR to reflect the date that approval was granted to proceed with the implementation of the IR. This date will reflect the date of written notification to proceed for Change IRs, or the date of the Change Control meeting that approval was granted for all other IRs requiring approval to proceed.
Approval Date (aka Change Approval Date)	Those IRs that are approved (see Approval), will also have a date of approval stored in the IR to reflect the date that approval was granted to proceed with the implementation of the IR. This date will reflect the date of written notification to proceed for Change IRs, or the date of the Change Control meeting that approval was granted for all other IRs requiring approval to proceed.
Author	The name of the person that created the IR. Any member of the project team can author an IR.
Baseline	In determining what type to assign to an IR, the project baseline is considered. An IR that requires a variance to this baseline will be considered a Change, as it is a change in project scope. Therefore, it is critical to clearly define the project baseline. The documentation that comprises the project baseline is defined within the Requirements Definition, our Proposal, and our Medi-Cal MIS/DSS Contracts, and the deliverables that have been accepted by the Client under these contracts.
Category	This is a name used to indicate what part of the Medi-Cal MIS/DSS system is most impacted by the IR. Values include: Capitation, Claims/CASE, DataScan, Drug, Documentation, Eligibility/Population/DHS Core, Episodes, Hardware (Host), Hardware (Server), IQ/Objects, MC Financials, MapInfo, Monthly Update, Network Communications, Other, Panorama View, PMW, Provider, Security, System Software (Host), System Software (Server), System Wide, Training.

Term	Definition
Change Control Coordinator (CCC)	The MEDSTAT CCC is the administrator of the IR Process and the IR Tool. In addition, the CCC is the primary focal point ensuring that impact analysis is completed and that the IR is properly assigned.
Client	Associates an IR with a particular client or filters the population of IRs for a specific client. This is a required field on the Investigation Request data entry screen. Use of this field enables a single database to support multiple clients while keeping them logically separate if desired.
Component Completed	See Component Name. A check box in the IR tool. When the box is checked, this indicates that the component has been modified according to the instructions within the IR.
Component Owner	See Component Name. Name of the individual that will be responsible to modify the particular component.
Component Name	Often times the IR requires that a program or a map or a DB2 table, etc. (or multiples of each) become modified in order to properly implement the IR requirements. Each of these items that will be changed are considered components.
Component Type	See Component Name. The Component Types are: Control, CopyBook, DCLGEN, DDL, JCL Job, JCL Proc, Map and Program.
Core Team	The MEDSTAT project management team is called the core team. It consists of the Project Director, the Implementation Manager, the Technical Support Manager, the Operations Services Manager, Development Manager and the Analytic Support Manager. This team meets weekly.
Core Team Approval Date	This field when left blank will identify this IR for inclusion in the next Core Team meeting for review. When not blank, it is implied that the Core Team has reviewed the IR or that it does not need review by the Core Team at this time. When an IR is first created, this field should be entered. All 'new' IRs are introduced during a Core Team meeting even with this field completed.
Date Opened	The date the IR is first recorded in the IR tool. Format is mm/dd/yy.
DB2 or Non DB2	A drop down box on the Production Promote Request. Values are: DB2, Non DB2. The purpose of this field is to provide an easy notification to the DBA that the component being migrated does or does not impact the database environment.
Detailed Description (aka Issue)	A detailed description of the problem or change. This should refer to any supporting documentation that is not included directly within the IR record. Such documentation is filed in the IR Documentation Binder maintained by the MEDSTAT Project Administrator.

Term	Definition
Help Desk Number	An IR may be created as a result of a Help Desk call. The call to the Help Desk will be recorded in the Help Desk database and assigned a number that is recorded in this field on the IR to provide a cross reference.
History of Actions	The IR tool captures history associated with each IR. This history includes actions that occur to bring the IR to closure. Each action has an assign date, person responsible to complete the action, target and actual completion dates. The CCC may enter multiple actions early in the IR's life cycle to help ensure that all teams impacted and responsible for implementing part of the IR have an assignment. The IR tool has a feature that gathers all open actions by person and reports them.
ID	Each IR will have a unique identification number assigned to it by the IR Tool. The number is simply a sequential number. The newest IR will always have a number which is one greater than the number assigned to the next most recent IR.
IR	Investigation Request. See the introductory section of Change control. An IR is described there as a 'problem' or a 'change' to baseline products, processes, HW/SW, etc.
IR Number	A unique identifier for each IR. This number is assigned automatically by the IR tool when creating a new IR.
Impact Analysis	Every IR will have an impact analysis completed. There are two components of an impact analysis. First, in narrative form, there is a description of the impact that implementation of the IR will have on resources, schedule, and costs in other project areas, or partner organizations.
Impact Code	A categorization of MEDSTAT's overall work effort associated with the IR is made. The current classifications are: A = 76+ hours B = 51 – 75 hours C = 10 – 50 hours D = under 10 hours For all IRs of type Change, and for which an estimate of overall work effort can be made within the five hours allocated for impact analysis, a specific estimate of the effort required will also be added to the Impact Analysis, so that the Client can approve this additional cost in their written direction to MEDSTAT to proceed with the Change.
Initiated By	The IR was identified by either the client (non MEDSTAT source) or MEDSTAT.

Term	Definition
Issue	The MEDSTAT project team maintains two tools—one is the IR system and the other is an Issue tracking system. It is important that project team members have a clear understanding of the difference between an Issue and an IR. Simply defined, an issue is an action item needing research or study, but has not been identified as an existing problem that must be resolved or a change that must be made. An example is "to identify end users that will be in production at the end of Phase 2" or "to determine whether to upgrade to DataScan v 4.0 or 4.1." An issue may later become an IR if, when the issue is closed, an IR is created to track resultant change to the project baseline.
Library Qualifier (From)	Indicator noting the library in which the component to be migrated is staged awaiting migration.
Library Qualifier (To)	Indicator noting the target library in which the component to be migrated.
Library Type	Text entry field on the Production Promote Request. Designates the library type.
Member Name	See Component Name.
Open Test Base #	If the IR was generated during testing, the Test Base being tested is recorded here. The format is P.# where P=Phase and #=the test base. If the IR is related to production, the format is P.#.S where P and # is same as above, followed by S where S=Sequential number representing the number of monthly updates applied since the creation of the original test base. This production naming convention held true through 5.3.1. After the 5.3.1 monthly update, the convention has become YYMM, where YY=two-digits of the year and MM=newest month of source data being included. Not all IRs are associated with a test or production database, so this field is no longer a required field. This field may also be referred to as 'Opened Database'.
Origination Activity	Discrete categories of activities denoting possible points of origin for the IR. Possible values include: Design, Help Desk, Other, Rollout, System Test, UAT.

Term	Definition
Package	Each IR contains both a targeted database field and also a package field. The values chosen for these two fields do not necessarily equal each other. The targeted database is always a production build or update, and never a test base. The package value will, more often than not, be a test base as changes are minimized in production builds. Through Phase 5, the targeted database was used mostly for targeting a phase in which the IR will be implemented, while the package describes the specific test database that the IR will be first implemented in, and is most useful in communication with the Department, and in scheduling and managing the workload within the MEDSTAT organization. Since Phase 5, the targeted database may often be the same as the package. However, if there is to be a test base activity prior to the package implementation, the targeted database would reflect the release update and the package would reflect the test base. Once the IR cutoff date transpires for a given release, the list of IRs for the package is finalized and the Release Package can be prepared. Once an IR has been assigned to a particular release package, shifting to another package requires approval of the MEDSTAT Core Team. If the shift has impact upon User Acceptance Testing or there is a movement from one target database to another target database, there must be approval of the Department (i.e. moving from 3.3 to 3.3.1). All movement must be documented within the IR detailed description. For example: 9/3/98: Core Team approval to move package from 3.1 to 3.2. Refer to 'Open Base #' for naming conventions used.
Person Responsible	The name of the person currently responsible to oversee the IR to resolution. The Person Responsible may not have line authority over individuals tasked to perform the work for the IR but uses his/her influence to rally necessary staff to bring the IR to completion. The person responsible may change over the life of the IR. When the IR author is not sure who this should be, the author should consult with the CCC.
Priority	Each IR has a priority assigned. The priority is significant as it gives an indication as to criticality for resolution. There are four priorities. They are: 1 - Show Stopper. 2 - Significant Impact. 3 - Medium Impact. 4 - Minor Impact.
Production Promote Request	The IR tool will print a production promotion request form for each IR. This Production Promote Request provided a list of all components to be migrated through configuration management to a designated target environment. The MEDSTAT librarian uses the Production Promote Request as the input to promoting the components.

Term	Definition
Proposed Resolution	A summary of the action proposed to resolve the IR. Since some IRs will require multiple actions, this field will have a many to one relationship with the IR. For each resolution recorded, the IR will also track the date that Core Team and State Review approved the resolution. In those cases that the resolution does not require Client or Core Team approval, the dates will not be required.
Reported By	See also 'Author'. 'Reported By' and 'Author' have the same meaning. Refer to 'Author'.
Root Cause	The fundamental reason for the IR. Categories will include the following values: Data Specs – not clear or correct Coding Error – Custom code Coding Error – Core Code Design – New Phase Routine Change Requested new Functionality Recommendation for Improvement Other State Mandated
SIR Number	System Investigation Request (SIR) is the name assigned to MEDSTAT's product development equivalent to an IR. An IR may require product development involvement in order to bring resolution. A SIR is then created and the SIR number (like an IR number) is then recording on our IR as a cross reference.
Special Instructions	The Production Promote Request has an area where an individual may enter free-form text to provided additional information about the components being promoted or specific instructions to the person that will do the promotion work.
State Approval Date	This field when left blank will identify this IR for inclusion in the next Change Control meeting for review. When not blank, it is implied that the Change Control team has reviewed the IR or that it does not need review by the Change Control team at this time. When an IR is first created, this field should be entered. All 'new' IRs are introduced during a Change Control meeting even with this field completed.
State IR #	When the IR is originated by the Client and the Client has a corresponding IR in their system, the Client's IR number should be entered here.

Term	Definition
State Sponsor	All IRs with a Type equal to Change, must have a State Sponsor. The State Sponsor will be the individual that originated the request for the change or the individual at the State that has agreed to champion the change if originated by MEDSTAT.
Status	An IR will have one of two Status values: Open—Status the IR will have until it is closed. Closed—Status the IR will have when it is agreed by relevant project personnel in the weekly Change Control meetings that the IR is complete.
Status Reason	The status reason for an IR may change many times during its life cycle. Upon closure, only one of two status reasons are possible: Closed – no Change, or Closed – Work Complete. A list of IR Status Reasons and a brief description of each follow: *Closed - Work Complete*—A status to designate that the IR change has been made and the IR has been closed. *Closed - No Change Required*—The problem defined within the IR has been determined to be working as designed, or has been addressed without need for a change. *Pended for System Test*—Work on the IR leading up to system test has been completed. *Pended for UAT Testing*—System Testing has been completed. The IR is ready for UAT. *Recommended for Closure*—The IR, a Change, has been deemed ready for closure by MEDSTAT, and is awaiting approval of the Client to close. Note that this is not a required field, and as such, can be left blank. However, upon closure of the IR, and edit is performed that forces one of the two status reasons, *Closed – Work Complete*, or *Closed – No Change Required* to be selected.
Summary Description	Each IR will have a brief statement of no more than 100 characters that summarizes it.
System Software	Third party software installed on any of the hardware components associated with the project which the end user does not directly use for performing their business. Operating systems and network communications software are examples of system software.
Target Close Date	The date the IR is scheduled for closure. Format is mm/dd/yy. To close an IR all work must be completed on the IR, including all testing and relevant documentation.

Term	Definition
Target DataBase	Numeric representation of the first production base in which the IR will be implemented. This is the agreed-upon, approved implementation database. IRs not yet agreed upon by both MEDSTAT and the Client will have a 9.9 Targeted database. Follow same numeric format as that defined in Open Test Base #.
Test Case #	Test Case Number. When an IR is created due to the failure of a formal test case, the test case number is recorded in this field. Completion of this field enables a cross reference back to the test case database.
Type	An IR may have a type of either *Problem, Change, Change—No Cost to State,* or *Other*. When an IR has a Type equal to *Problem,* this implies that the agreed upon design has not been implemented correctly. An IR with a Type equal to *Change* implies that in order to implement the IR, written notification from the Client Project Director, along with an agreed upon payment is required. See definition of baseline. A *Change—No Cost to State*, is a Change, but MEDSTAT has agreed that there will not be a cost to the Client. *Other*—is used when the IR is none of the above, or is found to not justify any action.

1.6.2 Assumptions

#	Assumptions
1	Any member of the project team (Client or MEDSTAT) may initiate an Investigation Request (IR).
2	The Client and MEDSTAT will each have a CCC. The CCC for MEDSTAT is a joint responsibility shared by the positions of Development Manager, Operations Services Manager, and Analytic Support Manager.
3	When an IR is considered urgent (all Show Stopper priority IRs are urgent), the process can be expedited in order to conduct impact analysis and to obtain necessary approvals to move forward.
4	All IRs with a Type=Change must have a Client Sponsor.
5	The Client will initiate an IR to MEDSTAT through the weekly Change Control meeting. All Client initiated IR's should first have an entry in the Client's IR system and a review performed by the MIS/DSS management team. A copy of the Client initiated IR in hardcopy form should be given to MEDSTAT prior to an entry in the IR tool.

#	Assumptions
6	MEDSTAT's Ann Arbor development team tracks all proprietary application software problems using a tool called SIR (Software Investigation Request). All problems identified by the project team related to MEDSTAT products, where these products are maintained by the development team in Ann Arbor, will be tracked in both the IR and SIR tools. The Medi-Cal MEDSTAT team will record the SIR number in the IR tool.
7	The IR process defines the major paths towards resolution of a problem or a change. Paths have not been documented for every variance that may occur.
8	Each phase of the CA Medicaid project has had associated with it high-level changes that had already been defined within the contract. An IR will be generated to represent each of the changes associated with the new phase. These will be documented within the IR tool (and also documented within the Design Specifications Deliverable for each phase) with Type='Change—No Cost to State' and Root Cause = 'Design – New Phase.'
9	System components are generally impacted as part of the implementation of an IR. Each IR where this is applicable will have the components portion of the IR completed and a Production Promotion Request will be generated and approved before any components are moved from the development environment to system test or production.

1.7 Skill Requirements

There are no particular skill requirements applicable to the execution of this procedure. All staff members are eligible to execute this procedure.

1.8 Entry Criteria

The Change Control Process begins with the initiation of an Investigation Request (IR).

1.9 Procedure Steps

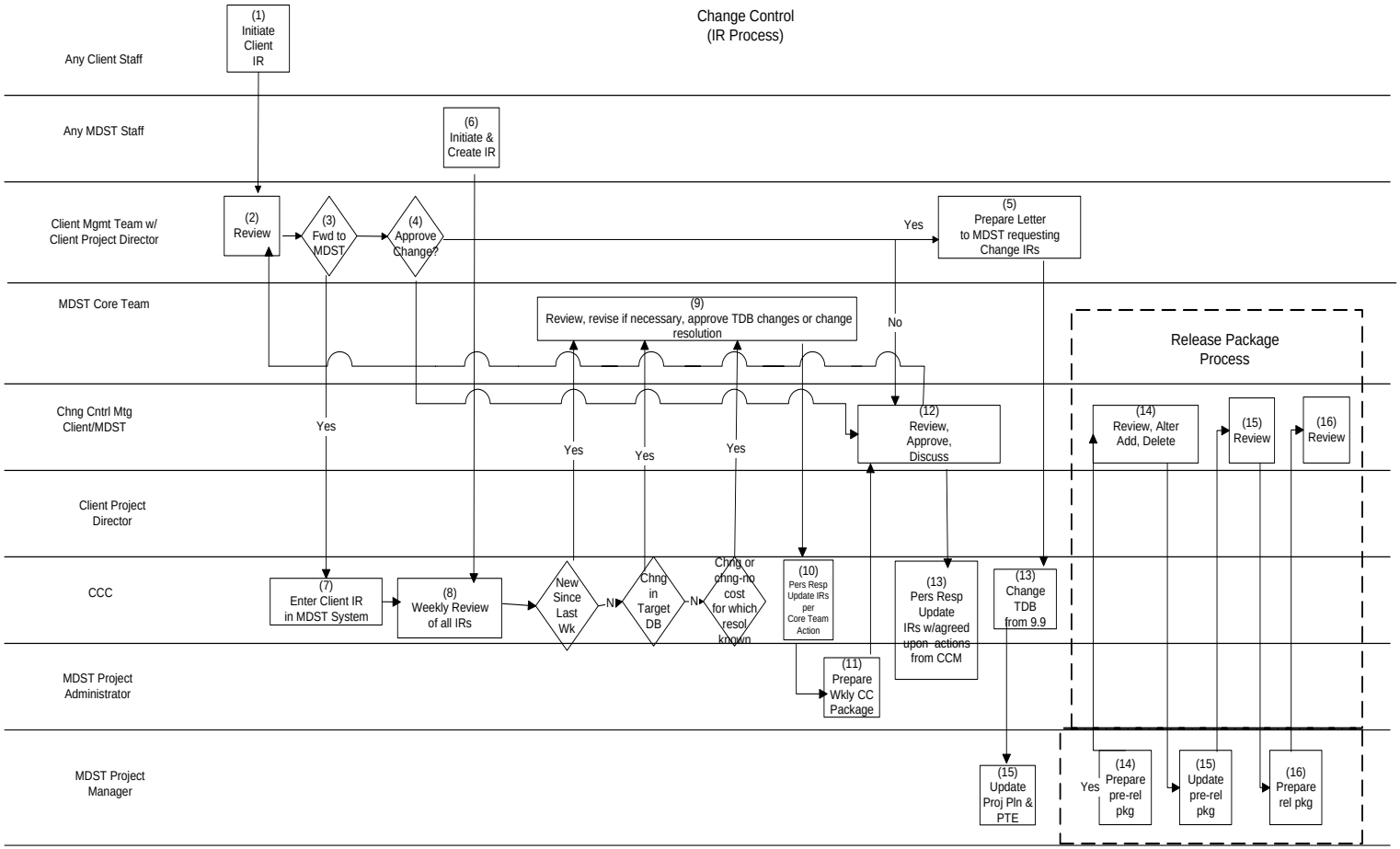
The IR process is depicted in a flowchart located following the Process Description below. Each Step of the IR process has a numeric indicator with a corresponding description.

#	Process Description
1	Anyone from the client initiates an Incident Report that requires MEDSTAT involvement in order to attain resolution. This Incident Report is captured in the client's tracking tool.

#	Process Description
2, 3, 4, 5	The client's management team meets weekly to do two things. First, it reviews all new client initiated IRs. The client prepares a hardcopy report of all new Incident Reports and delivers these to MEDSTAT in the weekly Change Control meeting. In addition, the client management team weekly meeting is used to decide whether to move forward on all pending Change IRs. If approved, a letter is prepared to MEDSTAT, requesting the Change, and authorizing the payment amount for the change. If not approved, the decision to not proceed is communicated in the next Change Control meeting, and the IR is then closed, or left open with a targeted database value of 9.9.
6	MEDSTAT discovers a Problem or Change opportunity. Any MEDSTAT staff has the capability of initiating an IR. IR's initiated by any member of the MEDSTAT team are assigned by the IR author an initial IR type (problem or change). The IR author also completes the IR Description and all other relevant information known at the time. The author then designates a person responsible. When unsure who should be assigned responsibility, the author consults with the CCC to make this assignment.
7	A MEDSTAT Investigation Request is generated by the MEDSTAT CCC for all client initiated IRs. All client initiated IR's will have the client's Incident Report number referenced in the IR. The CCC initiating the IR will assign the Person Responsible, and determine the initial Type (problem or change).
8	The CCC validates the information within all new IRs, including the initial IR Type. The CCC (or other resource assigned by the CCC) performs impact analysis identifying cost, timeline for implementation, resources and value/benefit considerations which might affect MEDSTAT or other partner organizations. If analysis cannot be completed within 5 hours of work effort, an estimate is provided to determine how much effort must be expended to complete the impact analysis. This analysis is recorded within the Impact Analysis section of the IR record. When the analysis is complete, the Core Team Approval Date is blanked out. This will flag the IR for inclusion in the next Core Team meeting. A target database is set for all new IRs of type Problem or Other, and the results of any Impact Analysis performed are added. All new IRs, IRs with a change in targeted database or release package, and IRs that are changes (either at cost, or no cost to the Client) for which a resolution is proposed, are forwarded for review to the Core Team.
9	The MEDSTAT Core Team reviews all IRs, and approves the resolution and impact analysis on Change IRs, and any targeted or package database changes.
10	The person responsible will update the IRs to reflect the decisions of the Core Team. A member of the Core Team will inform the person responsible of changes to be made.

#	Process Description
11	The MEDSTAT Project Administrator prepares the package for the semi-monthly Change Control meetings that are held jointly with Client and MEDSTAT staff. Included in the package are: • A summary list by category and priority of all new IRs since the last meeting • A summary list by category and priority of all IRs closed since the last meeting • A detailed report of all new IRs entered since the last meeting • A detailed report of all IRs closed since the last meeting • A detail report of all IRs requiring Client Review (Identified by a 'blanked-out' State Approval Date. • A detail report of all IRs that are being recommended for Closure • A summary report of all IRs • An activity report of all IRs for which the Client has been assigned an action item
12	The semi-monthly Change Control meeting is held. During this meeting, a review of metrics (number of new IRs since last meeting, number of closed IRs) is conducted, and all new IRs since the last meeting are reviewed if they have a priority of Significant Impact or Show Stopper. The Client presents any suggested changes they may have to the IRs that were new during the prior Change Control meeting, and any decisions regarding the pending Change IRs. Any new IRs of type Change that have passed the Core Team review are presented for a decision to proceed by the Client. The Change Control representatives review and discuss the issue/problem and proposed resolution, for all Client Review IRs to identify any impact upon resources, schedule and costs for MEDSTAT or other partner organizations (i.e. ITSD, HWDC, Logicon). If it is determined that the problem or proposed resolution will have an impact on a partner organization which is not represented at the meeting, the Client Coordinator will be responsible for coordinating input from that organization. Proposed resolutions are discussed on all IRs for Client Review, and a decision on IRs that are recommended for closure is made. In the event that the parties in the Change Control meeting cannot mutually agree upon issues such as the categorization of an IR type, these issues will be addressed by project management.
13	Being informed by the Change Control Coordinator, the Person Responsible updates the IRs that have been reviewed during the Change Control meeting. For Change IRs that the Client has requested in writing, a target database is assigned, the project plan and PTE are updated by the Project Manager to include the out-of-scope task for tracking purposes, and work is authorized to begin.
14	A preliminary release package of all IRs targeted for the next targeted database is prepared and distributed to the client CCC for review and approval.
15	A day or two prior the release of an updated database, a revised pre-release package is prepared and distributed to the client CCC as a way to communicate precisely what IRs have been implemented. This list may vary from the original pre-release package described above as IRs planned for implementation were delayed.

#	Process Description
16	One week following the release of an updated database, a release package is prepared and distributed to the client. This release package includes among other things, the final list of IRs implemented with the update and an explanation as to why those planned but not included were moved to another target database.


Change Control
(IR Process)
Any Client Staff
Any MDST Staff
Client Mgmt Team w/
Client Project Director
MDST Core Team
Chng Cntrl Mtg
Client/MDST
Client Project
Director
CCC
MDST Project
Administrator
MDST Project
Manager
(1) Initiate Client IR
(2) Review
(3) Fwd to MDST
(4) Approve Change?
(5) Prepare Letter to MDST requesting Change IRs
(6) Initiate & Create IR
(7) Enter Client IR in MDST System
(8) Weekly Review of all IRs
New Since Last Wk
Chng in Target DB
Chng or chng-no cost for which resol known
(9) Review, revise if necessary, approve TDB changes or change resolution
(10) Pers Resp Update IRs per Core Team Action
(11) Prepare Wkly CC Package
(12) Review, Approve, Discuss
(13) Pers Resp Update IRs w/agreed upon actions from CCM
(13) Change TDB from 9.9
(15) Update Proj Pln & PTE
Release Package Process
(14) Review, Alter Add, Delete
(15) Review
(16) Review
(14) Prepare pre-rel pkg
(15) Update pre-rel pkg
(16) Prepare rel pkg
Yes
No
N

1.10 Exit Criteria

The Change Control Process is exited when the Investigation Request has been closed.

1.11 Forms and Instructions

None

1.12 Subject Examples

None

1.13 Reference Material

None

1.14 Policy History

Established/Revision Date	Established/Revised By	Change Description
Revised 10/2000	Todd Jackman	Amended procedure to include support for multiple clients, core team and State approval dates and Component Promotion processing.

1.15 Appendix

None

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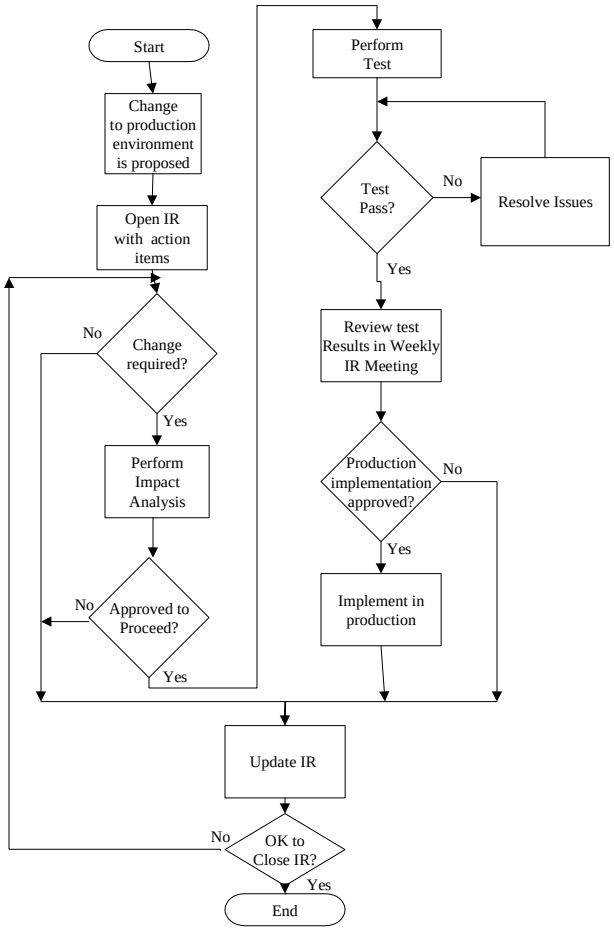
1. Configuration Management

1.1 Overview

The primary purpose of Configuration Management in the Production Environment is to ensure system availability. To assist in ensuring that each change can support this primary purpose, some questions have been developed to aid the Change Control Committee (representatives from DHS, ITSD, HWDC, Logicon, MEDSTAT) in determining if a change to the production environment is actually ready for implementation. By asking the following questions about each proposed change, the committee will be able to determine how much planning and risk analysis must be done for the proposed change.

1. What users will be impacted by the change and how will they be notified of the change prior to implementation?
2. What is the plan to test the change in a test environment before moving into production?
3. Which users will be asked to assist in the testing of the change?
4. What is the back out plan should the change implementation fail?
5. What testing will occur in the production environment once the change is implemented?
6. How/when will the appropriate parties be notified of the success or failure of the implementation?

The procedures used to make changes in the production environment must take into consideration each of the above questions. Each procedure must not start without appropriate approvals that are obtained via the Change Control process. The procedure must also describe the process for updating and/or closing the IR when complete.



The following series of documentation is grouped together for the purpose of defining Configuration Management (CM) for the Medi-Cal MIS/DSS project. The documentation begins with a statement of policy and then is followed by a series of procedures having to do with Configuration Management.

All hardware, software, and documentation relating to the production system falls under the management criteria of this policy. Some change items may require stricter controls and procedural rigor

than others due to the risk the change represents to the project. At a minimum, the changes that occur in the production environment will be managed through the Change Control process. This will help to ensure that cross team communication is present and that all change is prioritized and co-requisite change is reviewed and analyzed. Changes that represent higher levels of risk require more procedural documentation in addition to the Change Control process. Items that have more procedural documentation are covered in the Scope section of this document.

Items that fall under Configuration Management (CM) follow a generic process flow for managing configuration changes in the production environment. The flow chart on the previous page depicts this generic flow. This flow does not represent a specific procedure. It should be used as a generic compass to guide a change in configuration through the Change Control Process. It shows the points where management extends approval to proceed. It also depicts how risk is reduced through a structured, repeatable process for changes to production configurations. The testing processes are used to mitigate the risk introduced by change. Each detailed procedure written for CM must include all elements depicted in this flow chart.

1.2 Purpose

The purpose of this document is to detail the processes in four major areas of the project that utilize configuration management to ensure that the proper versions of components are utilized during production execution. These five processes are:

1. Application Software upgrades and patches
2. 3rd Party Software upgrades and patches
3. Customized Support Tables utilized in production cycles
4. Upgrades to Project Mainframe and NT Servers

1.3 Scope

Documented within this section is a detailed definition of what falls under configuration management – in other words, the scope of configuration management. The many components where change may occur are listed in the table below. These components are categorized together by Configuration Management Category. A CM process is documented for each category.

Configuration Management Category	Component
Application Software Upgrades/Patches	DataScan
	Panorama View
	Performance Measurement Workstation
	Briefing Book
Hardware	See Appendix A – S4S4 Hardware Inventory and Tech Support Server Docs

Configuration Management Category	Component
Customized Support Tables	Col Lookup
	EGAD
	Other Clinical Support Tables
	Panorama View Customized Catalogs
3rd Party Software Upgrades/Patches	Differ per product, see Tech Support Workstation and Server Software Docs

No changes will be made without having an approval for the change through the Change Control Process. An Investigation Request (IR) will be opened in the Change Control Process to represent each change.

1.4 Responsibility and Enforcement

It is the responsibility of the Implementation Manager to monitor and enforce CM. When necessary, the Implementation Manager will delegate monitoring and enforcement of specific procedures to appropriate managers.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

The skills required to utilize this process primarily relate to management and oversight. A familiarity with project management tools is very beneficial as well.

1.7 Entry Criteria

This policy is invoked whenever a change is proposed for any of the components identified in the Scope section of this document.

1.8 Procedure Steps

1.8.1 Application Software Upgrades and Patches

This procedure has been developed to control changes to the software components of the MIS/DSS software suite at the client workstation level. Through the duration of the Medi-Cal project, new versions and patches for client side software will become available for installation. This standard, repeatable procedure has been developed to manage the distribution of software changes to users. The intent of this procedure is to control the distribution of all updates made to MIS/DSS application suite software . All proposed software updates must have a related IR. No software configuration changes can be planned, tested, or implemented until the IR has been

reviewed and approved by the Change Control Committee. Only research and impact analysis work as required by the IR process can be performed before approval. The following steps contain the detailed instructions to successfully evaluate, test, and implement a software change to the MIS/DSS.

1. Software changes applying to NT servers or user workstations are "checked-in" to the MKS Source Integrity version control as a new sub-directory within the given application group. All work (e.g., user desktop rollout, server installation of new software) with the new software will result from a "check-out" of this version of the software. Software component changes for the Mainframe environment follow the processes outlined in the Development Migration and Promotion and Operations Library Structure and Migration documents under separate cover.

2. Within this process, two testing steps exist to ensure the software maintenance/release is working in the development and test environment prior to releasing it to production. After each test step, a decision is made to determine if the software maintenance/release was installed successfully. If not, the IR is recommended for closure. It is assumed that all efforts are made to resolve issues within the test block of the process diagram. A single issue should not cause the process to be exited. Work with vendors and other technical resources should occur within the test step to resolve any installation and configuration issues. Should an issue become unresolvable, a case by case decision is made regarding next steps by both the technical staff and the project management team. It is a considerable guideline to not allow more than one day to pass before a problem/issue is escalated to the appropriate member of the Core Team.

3. If the IR for a software upgrade or patch is approved and the necessary testing is complete, the Technical Support Team will proceed to implement the software update on a single workstation. They will then configure and test the new software to determine if the change can be implemented in MIS/DSS environment. This is a stand-alone test so that no other users will be impacted by the software update.

4. If the internal test fails or does not completely meet expectations, the support person will document the results in the IR and recommend it for state review. The Change Control Committee can then review the results and determine how to proceed.

5. If the internal test passes, the System Support person will report the outcome for the next Change Control meeting. The implementation plan will be reviewed by the Change Control Committee to ensure that all parties agree on the dates and prioritizing of changes in the test environment. Once approved, the System Support Team will proceed with the Implementation of the change.

6. If workstation software changes are required to implement the change, a rollout schedule is drafted for approval by Change Control. Please see the Workstation Software Installation Process document for further details about the software that is installed on each workstation.

7. Once all changes have been implemented in production and the date for installation on the client workstations is completed, the System Support Team will recommend the IR for closure. The Change Control Committee will then decide what further action, if any, will be taken. Now that the implementation phase of the software update is complete, the first point of contact for issues and problem reporting becomes the MEDSTAT Medi-Cal Help Desk.

1.8.2 3rd Party Software Upgrades and Patches

There are third-party products deployed in direct support of MEDSTAT applications and other third-party products that constitute tools providing indirect support of the overall management of the MIS/DSS project. Any decision to upgrade or to apply a patch to a third-party product on the MIS/DSS project will first be evaluated as follows:

1. Is there required functionality that is either not present or is not working appropriately in the deployed version of the product that is mitigated by a patch or an available upgrade?
2. Is the deployed version of the product working appropriately but the vendor will no longer support it?

It is not the intent to upgrade or patch a product simply because a newer version or patch is available. If either one of the two questions noted above is answered with a 'Yes', then the following questions will be asked:

1. Is the third-party product needed in direct support of a MEDSTAT application? These products are tested for compatibility by MEDSTAT's product support and QA groups.
   - Has MEDSTAT (MEDSTAT product support and QA groups) performed the testing and certified that the application is compatible with the upgrade or patch version?
   - If the product has not yet been tested with the MEDSTAT application, what is the timetable and is that timetable compatible with project needs?
   - Is the problem that the upgrade or patch will resolve significant enough to expedite the testing process?

2. Is the third-party product a tool (e.g., Diskeeper), not directly supporting a MEDSTAT application? If so, MEDSTAT's product development and QA groups are not directly involved in the decision to upgrade or apply a patch.

The MIS/DSS project team has appointed product owners for each of the MEDSTAT applications (and with this responsibility comes responsibility for the associated third-party products) and also for each of the third-party applications not directly associated with a MEDSTAT application.

Each product owner is the focal point for addressing project issues associated with the product. The product owner:

- Gathers vendor information about the product and monitors patch and upgrade availability on at least a semi-annual basis (on indirect third-party products).
- The product owner interacts with the MEDSTAT product development and QA teams where applicable.

- The product owner, following the change control process, initiates an IR and tracks the IR to closure.
- For products not directly associated with a MEDSTAT application, the product owner interacts directly with the product's vendor to drive issue resolution.

1.8.3 Customized Support Table Updates

The customizable DataScan tables named Col_lookup and EGAD, as well as clinical support tables for DataScan and Panorama View (clinical support tables that are time-sensitive where the table content is defined external to the project, such as zip codes, diagnosis and procedure codes, etc.), require periodic updates. Changes to Panorama View Catalog changes are documented separately. The Col_lookup table provides information on field values and their descriptions for the database fields in DataScan. The Element Generation and Definition (EGAD) tables serve as a data dictionary for the core Case, Claims, and Population tables as well as for non-core tables. The number of tables and the changes that occur in these tables during a phase makes the process of administration complex. Usually the clinical support tables are updated on a quarterly or annual basis. A list of these tables is included in Appendix C. All future updates to these tables will be assigned an Investigation Request (IR). In addition, specific validation tests are added to ensure their successful implementation.

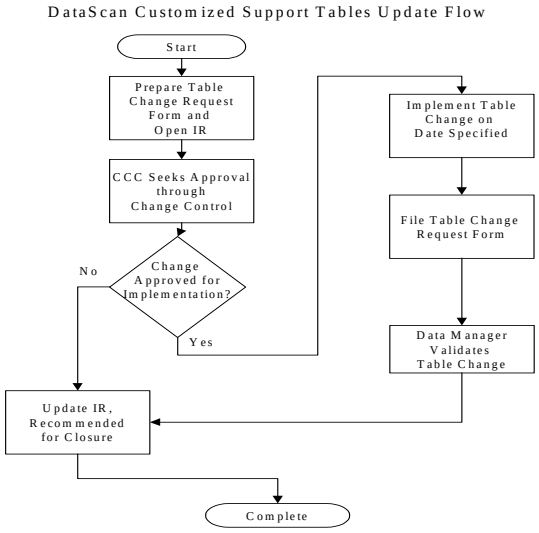


Figure 2:Customized and Clinical Support Table Update Flow

Generally, logic changes, additional vlaues or new requirements drive the need for updates to the Customizable DataScan Tables. Table updates are made in compliance with the Change Control Process. The approval for a change is funneled through the Change Control Process to ensure that the State and the MEDSTAT project team all agree before implementation. The timeline for implementing this change is reviewed as part of the Change Control process.

The following are the steps required to successfully evaluate, test, and implement a DataScan table update:

1. The requester fills out a new or appends an existing Table Change Request form and opens a new IR. The IR and Table Change Request form is given to the lead Data Manager (DM) for review.
2. The Change Control Coordinator (CCC) presents the change in the Change Control meeting with the State where an implementation decision is made.
3. If the change is approved, the Data Manager (DM) assigned to perform table maintenance will implement the change per the implementation effective date indicated on the Table Change Request form. Any communication to the users concerning changes will be

communicated through the MIS/DSS Project Office at the Department of Health Services. If the change is not approved for implementation, the IR will be updated as recommend for closure.

4. The change is implemented by following the directions in Chapter 6, section 5 of the Data Management Guide. This section describes the Database Definition Table (DB_DEF) maintenance panel. Use the direction in this section to complete the change. The userid being used to make the change must have the appropriate DataScan System authority to perform the update. The Operations Team is responsible for granting and revoking access to the DB_DEF panel.
5. Upon completion of the change, the Data Manager (DM) assigned to perform table maintenance will logon to DataScan and validate the change within the interactive interface. If the change was not completed successfully, the DM will go back to step 3 above and repeat the process until the change is implemented successfully.
6. Upon completion of the implementation, the DM will update the IR and note the completion date on the request form. The request form is then filed in the completed file folder

1.8.4 Hardware Upgrades

The hardware within the S4 and NT environments is defined within the contract. Changes of any kind--such as additional memory, disk or DASD, CPUs, etc.--to hardware used in support of the production environment are required to be made in adherence to the project change control process. Hardware changes will be minimal during the life of the project. As the steps for managing hardware changes are nearly identical to those defined for performing 3rd party software upgrades, please refer to that process description when doing hardware changes as well. In addition, see the Technical Support System Software Installation and Maintenance documents for specific details about the installation of application and operating system software on project servers. Refer to the Technical support Server Hardware and Software Maintenance documents for an inventory of hardware and system software components on the NT environments. See Appendix A for the Hardware inventory on the S4S4 Mainframe server.

1.9 Exit Criteria

This process is exited after the successful implementation of an upgrade/patch or decision to rescind the implementation is made.

1.9.1 Exit Exception Criteria

Emergency implementations resulting in hardware failure directly relating to cycle execution or user response or software components required for emergency resolution of a build/update issue that stops the cycle are the only items permitted to be considered for exceptions to this process

1.9.2 Exit Exception Handling

The exception must be documented, agreed to by the Project Director and the Change Control team prior to implementation.

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

- Change Control Process
- IR Tool
- Table Change Request Form

1.12 Appendix A – S4S4 MF Hardware Inventory (some hardware may have been upgrades to new equipment that is at least functionally equivalent)

MODEL NO.	FEATURE NO.	HARDWARE DESCRIPTION	QUANTITY
MAINFRAME HARDWARE (LOCATED AT HWDC)			
CPU			
9672	R34	S/390-R34 CPU, 127 MIPS,1024 MB MEMORY	1
	0007	COUPLING LINK 1KM ALL MODELS	2
	0012	CEC AIRFLOW R1 2/3 MODELS	25
	0014	INTRSYS CHANNEL ADAPTER ALL MODELS	1
	0018	CHANNEL DRIVER CD R2/3 MODELS	5
	0021	OPT PC CONSOLE W/RST	1
	0050	CEC CAGE	1
	0501	R141 WAY PROCESSOR	1
	0808	PRE CRYPTO GA	1
	2020	I/O EXPANSION CAGE	1
	2313	ESCON CHANNEL CD	6
	2337	FIBB CARD SINGLE WIDE	3
	3256	256MB MEMORY CARD	4
	5201	OSA2 EN/TR	1
	6090	SML CONSOLE DISPLAY	1
	6152	ETR DUAL PORT	1
	8887	4.8US,NON-CHI R2/3 CO2/3	1
	9930	NORTHERN HEMISPHERE	1
	9960	SERV TOOL KIT R3 MODELS	1
DASD			
9390	001	STORAGE CONTROL UNIT (SINGLE SIDE)	1
	1120	512MB CACHE	1
	1310	32MB NVS	1
	1410	8 PORT ESCON 64 LOG PATHS	1
	9903	VOLTAGE 208V, 60HZ	1

MODEL NO.	FEATURE NO.	HARDWARE DESCRIPTION	QUANTITY
9390	002	STORAGE CONTROL UNIT (DOUBLE SIDE)	1
	1120	512MB CACHE	1
	1310	32MB NVS	1
	1400	4 PORT ESCON 64 LOG PATHS	1
	2120	512MB CACHE	1
	2310	32MB NVS	1
	2400	4 PORT ESCON 64 LOG PATHS	1
	9903	VOLTAGE 208V, 60HZ	1
9391	A30	STORAGE FRAME	1
	3202	50-60 HZ 200V-240V	1
	9079	POWER CORD 60A 14' US,CAN,JPN	1
	9499	DESIGNATE MOD B33 DRAWER	2
9391	A30	STORAGE FRAME	1
	3202	50-60 HZ 200V-240V	1
	9079	POWER CORD 60A 14' US,CAN,JPN	1
	9499	DESIGNATE MOD B33 DRAWER	7
9391	A30	STORAGE FRAME	1
	3202	50-60 HZ 200V-240V	1
	9079	POWER CORD 60A 14' US,CAN,JPN	1
	9499	DESIGNATE MOD B33 DRAWER	7
		(1 DRAWER=8 VOL'S@2.83GB=22.64GB PER DRAWER)	
9392	B33	DRAWER (48GB)	2
9392	B33	DRAWER (144GB)	6
9392	B33	DRAWER (168GB)	7
9392	B33	DRAWER (168GB)	7
9392	B33	DRAWER (264GB)	11
		TOTAL DRAWERS - 33 (747.12GB)	
COMMUNICATIONS			
3174	12L	ESTABLISHMENT CONTROLLER	1
	0801	200-240V POWER SUPPLY GSA	1
	5010	CONFIGURATION SUPPORT-B	1
MAGNETIC TAPE			
3490	A20	MAGNETIC TAPE SUBSYSTEM (CARTRIDGE)	1
	3312	ESCON ADAPTER A02/A20	1
	9063	CLASSIC BLUE	1

MODEL NO.	FEATURE NO.	HARDWARE DESCRIPTION	QUANTITY
3490	B40	MAG TAPE SUBSYSTEM-4 DRIVES (CARTRIDGE)	1
3490	B40	MAG TAPE SUBSYSTEM-4 DRIVES (CARTRIDGE)	1
3490	B40	MAG TAPE SUBSYSTEM-4 DRIVES (CARTRIDGE)	1
		TOTAL DRIVES - 12	

1.13 Appendix B—Clinical Support Tables

1.13.1 DataScan®Frequency of Clinical Support Table Updates

There are several support tables in DataScan that are periodically updated to take into account changes. These include zip codes, diagnosis and procedure codes, and various classification systems. The table below identifies the schedule for updates to each of the major time-sensitive support tables.

Note that some tables are shipped with a new release of DataScan, and some tables are independent of a version release. Each client (in this case, MEDSTAT's Medi-Cal account team) coordinates the request and delivery of these tables with the Software Customization and Installation Services team in our Ann Arbor office.

Table or Software	Frequency of Update	Independent of DataScan Release?	Comments
Red Book	Quarterly	Yes	Eff. DataScan 4.2
MarketScan Norms	Annual	Yes	Also updated when grouper version changes
TRIM_ALL			
DXI9CNV Crosswalk file	Annual	Yes	Crosswalks to a specific DRG Grouper version
PRC_MAP_xx	Annual	Yes	
ICD9_PROC	Annual	Yes	
PROC_RVU	Annual	Yes	RVU fields retroactively reassigned when a new version of the DRG Grouper is released, as part of a DataScan Upgrade
GEO_FACTOR	Annual	Yes	
ZIPMAP	Annual or as needed	Yes	
ICD9_DIAG	Annual	No	
DRG Grouper, DRG_MDC **	Every 3 years or major update	No	
MDC_MAP and DX_Pattern	Every 3 years or major update (Tied to Grouper)	No	

Table or Software	Frequency of Update	Independent of DataScan Release?	Comments
AMB_MAP	Annual	Yes	Retroactively reassigned when a new version fo the DRG Grouper is released, as part of a DataScan Upgrade
PATTERN_TG and DX_PATTERN	Every 3 years or major update	No	
Disease Staging	Every 2-3 years or major update	No	

1.13.2 Panorama View®Frequency of Clinical Support Table Updates

The Panorama View Product, unlike DataScan, has been designed to allow for greater flexibility from client to client. Most of the clinical codes used to support Panorama View's questions, or displays, are based on the codes listed in the Panorama View Implementation Guide. As a result, the process of updating support tables is driven by the particular needs of each client, rather than on a set release schedule.

In Medi-Cal's case, this Implementation Guide is provided to the State for review with each new phase, as part of the System Design Deliverable.

Listed below are the broad categories of clinical information used by Panorama View for Medi-Cal.

Table or Software	Frequency of Update	Independent of Panorama View Release?
Standard Codes (diagnosis, procedure, and revenue codes) used by Panorama View's Standard Questions	Tied to Panorama View release	No
Local Codes (diagnosis, procedure, and revenue codes) used by Panorama View's Standard Questions	As needed and approved by the State through the System Design and Change Control process	Yes
Bed Count Information from DHS' Licensing and Certification	Currently updated by Phase, but could be updated more frequently if adequately tested prior to move to production.	Yes

Table or Software	Frequency of Update	Independent of Panorama View Release?
Census Information	Currently updated by Phase, but could be updated more frequently if adequately tested prior to move to production.	Yes

1.14 Policy History

Established/Revision Date	Established/Revised By	Change Description
5/1/00	John Mulcahy	Policy/Process Established

Table of Contents

1. User Outreach and Follow-Up

1.1 Overview

This document describes the process by which MEDSTAT obtains information about each end user's specific job responsibilities and what Medi-Cal specific information End-Users are looking for on a regular basis. MEDSTAT will use this information to help End-Users apply the MEDSTAT Product Suite to their everyday data needs and develop Advanced Analytic training courses designed to address future analytic needs. User Outreach will be an ongoing process over the course of the entire project.

1.2 Purpose

The purpose of this document is to outline how MEDSTAT's User Outreach and Follow-Up program is currently managed.

1.3 Scope

This document will be used by any project team member responsible for understanding how to meet the reporting needs of the MIS/DSS user community.

1.4 Responsibility and Enforcement

The MIS/DSS project team is responsible for enforcement of this document.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

The skills required to perform this process include strong familiarity in the following areas:

- DataScan
- Panorama View
- MyEureka!
- MapInfo
- Performance Measurement Workstation
- Facilitative processes

1.7 Entry Criteria

This process is entered any time a component of the user community has been targeted for Outreach.

1.8 Procedure Steps

The following are the steps to be taken in order to undertake the outreach and follow-up for MIS/DSS end users and recipients of information from the MIS/DSS:

1. MEDSTAT reviews the log-in active patterns of the user community to determine level of usage from each content area (i.e., division, branch, section etc.) of the client. See the Help Desk and Monthly Usage Reporting process document for more details.

2. MEDSTAT works closely with the Project Office to determine "high priority" content areas.

3. Based on usage patterns and established priorities, MEDSTAT schedules 1-2 hour meetings with either the leadership of the content area or the MIS/DSS users in the content area (members of the two groups may overlap).

4. Meetings with the content area leadership are conducted as follows:
   - An agenda is circulated and introductions are made.
   - Meeting objectives are stated, such as:
     > Acquaint MEDSTAT staff with content area executives.
     > Review the area's near- and medium-term goals.
     > Clarify information and reporting needs.
     > Discuss MIS/DSS implementation and progress.
   - Depending on the level of familiarity with the MIS/DSS, the group is provided with a short overview of the system, using examples from the relevant content area.
   - Participants are asked to put together a key list of program objectives, including:
     > What things do you need to accomplish this year or next?
     > What is the significance, impact and priority of the objective?
     > Who are the key players to implement and track this?
   - After identifying program objectives, participants identify what reports they require:
     > How do you measure the objective's success?
     > What data do you need to monitor performance against goals?
     > How often do you use the report?
   - Participants are provided with a list of next steps, including meetings with more specialized sub-groups in the content area. During these meetings (see #5 below), key staff are identified as resources with which MEDSTAT will work to develop MIS/DSS reporting tools.

5. Meetings with the content area users are conducted as follows:

   - An agenda is circulated and introductions are made.
   - Meeting objectives are stated, such as:
     > Acquaint MEDSTAT with content area specialist and analysts
     > Review current and future reporting needs.
     > Identify barriers to getting useful data.
     > Discuss MIS/DSS implementation and progress.

- Participants are asked to put together a key list of current/prospective reporting needs, including:
  > What types of reports do you run (or read)?
  > What is the report's data source or system?
  > Who is the audience?
  > What is the report used for?
  > What decisions does is support?
  > How often is it run? How long does it take?
  > What is the significance, impact and priority of the report?
- Participants are asked to clarify current barriers to obtaining reports. Such barriers could include staffing resources, connectivity, training, priorities, etc.
- Participants are provided with a list of next steps, including individual meetings MIS/DSS users in the content area. During these meetings, MEDSTAT staff would help users to develop MIS/DSS reporting tools, including templates and measures from the application suite. In addition, users are advised of known resources available to help overcome identified barriers.

6. Projects are tracked jointly and meetings with content area leadership and users continue as reporting projects are identified and completed. Efforts are reported to the Project Office on a monthly basis and are included with the Help Desk and Monthly Usage Reporting.

1.9 Exit Criteria

This process is a continuous cycle and will not be exited unless the database and applications have been decommissioned.

1.9.1 Exit Exception Criteria

None.

1.9.2 Exit Exception Handling

None.

1.10 Forms and Subject Examples

All work done as part of the User Outreach and Follow-Up is contained in the W:\CA_MED\ANALYSIS\ANALYSES subdirectory and is arranged by content area.

1.11 Reference Material

All reference materials for User Outreach and Follow-Up a is contained in the W:\CA_MED\ANALYSIS\ANALYSES subdirectory and is arranged by content area.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
05/05/2000	Robert Joy	Policy/Process Established
3/9/2001	Robert Joy	Reviewed for errors/ommissions

Table of Contents

1. Training Intake and Class Preparation Documentation

1.1 Overview

This document was describes the process by which client staff provide training and the means by which the training is prepared.

The MIS class consists of Panorama View training, which includes the project overview. The DSS classes consist of DataScan (3 full days), My Eureka! (1 full day), Performance Measurement Workstation (1/2 day) and Map Info (1/2 day). In addition, newly trained Users will be invited to the Advanced Analytic and Upgrade/Refresher classes.

1.2 Purpose

The purpose of this document is to outline how MEDSTAT currently manages and delivers the training program.

1.3 Scope

This document will be used by any project team member responsible for coordinating the training needs of the MIS/DSS user community.

1.4 Responsibility and Enforcement

The MIS/DSS project team is responsible for enforcement of this document.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

The skills required to perform this process include strong familiarity in the following areas:

- DataScan
- Panorama View
- MyEureka!
- MapInfo
- Performance Measurement Workstation
- Basic mainframe interface navigation
- MS PowerPoint
- Classroom management and instruction techniques

1.7 Entry Criteria

This process is entered any time the training program is to be implemented.

1.8 Procedure Steps

1.8.1 New User Training

The following are the steps to be taken in order to provide training to new MIS/DSS end users:

1. Provide a proposed training schedule to the MIS/DSS Project Office 60 days before each calendar quarter based on numbers of End-Users in need of new or refresher training and in accordance with contractual training guidelines.

2. The Project Office agrees to the proposed schedule.

3. The Project Office will determine when there are enough individuals to fill the classes subject to mutually agreed upon minimum/maximum attendence.

4. The Project office will schedule the trainees for the various available classes.

5. The Project Office will contact individuals to schedule a training date (based on an agreed training schedule).

6. MEDSTAT will provide training sessions subject to the maximum number of end-users and in accordance with contractual guidelines relating to number and frequency of training sessions.

1. The Project Office will keep MEDSTAT informed as trainees sign up, and MEDSTAT will provide the Project Office with a list of actual attendees.

1.8.2 Advanced Analytic Training ("Periodic Training")

The following are the steps to be taken in order to provide Advanced Analytic Classes:

1. MEDSTAT, through User Outreach and Follow-up (see the associated process document) contacts trainees on an ongoing basis to obtain information about each person's specific job responsibilities and what Medi-Cal specific information End-Users are looking for on a regular basis.

2. MEDSTAT will use this information to help End-Users apply the MEDSTAT Product Suite to their everyday data needs and develop Advanced Analytic training courses designed to address future analytic needs.

3. Development of Advanced Analytic Classes will be an ongoing process over the course of the entire project.

4. The Advanced Analytic classes will be designed around End-User department/branch needs and each class will be structured differently to meet those departmental needs.

5. MEDSTAT will work closely with the Project Office to help identify divisions and timing of each Advanced Analytic class.

6. MEDSTAT will work with the Project Office to schedule a date that will accommodate most trainees (based on an agreed training schedule).

1.8.3 Identification of Trainees and Workstations

The following are the steps to identify trainees and workstations:

1. The Project Office will notify MEDSTAT of those signed up for training at least one day prior to the scheduled class.

2. The Project Office also will provide MEDSTAT with a form (the format of which to be agreed upon by MEDSTAT and DHS) for any workstation installation, modification, move, or uninstallation. If the form is for a community workstation, it will indicate the users assigned to the PC. If a PC is not available for a user, training may be delayed for individuals without access until a PC can be assigned and configured.

3. Receipt of the form indicates readiness for MEDSTAT maintenance on the part of the office in which the PC is located. Upon receiving the form, MEDSTAT will independently schedule and perform the service request within two weeks.

1.8.4 End-User Training Preparation

The following are the steps to prepare for and provide end-user training.

1. If it does not yet exist (and it is required due to table size and response time issues), a training database environment will be created.

2. Exercises will be reviewed or updated with new data based on existing examples from prior classes. All exercises are currently found in the W:\Training\Phase 5 Training subdirectory and are organized by product or class name.

3. PC resources and connectivity will be confirmed for the classroom in which the training is to be held.

4. Training and software documentation will be assembled (and ordered from MEDSTAT in Ann Arbor if required) based on the number of expected trainees. The materials, including an agenda outlining class content, are included in the W:\Training\Syllabi subdirectory.

5. A sign-in sheet will be circulated to arriving students, and each will receive a packet of training and software documentation.

6. Training will be conducted per the class agenda

7. Upon completion of each class, students will be given an evaluation, the results of which will be summarized for the Project Office.

1.9 Exit Criteria

This process is a continuous cycle and will not be exited unless the database and applications have been decommissioned.

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

All examples used for training are either in the W:\Training subdirectory or can be found via the MEDSTAT intranet at http://home.medstat.com/mspd/default.htm.

1.11 Reference Material

All reference materials for training are either in the W:\Training subdirectory or can be found via the MEDSTAT intranet at http://home.medstat.com/mspd/default.htm.

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
05/05/2000	Robert Joy / Bill Bauer	Policy/Process Established
3/9/2001	Robert Joy	Reviewed for errors / omissions
3/9/2001	Robert Joy	Modified explicit references to numbers of end users
3/9/2001	Robert Joy	Removed section on "refresher training"; included it with the standard training protocol
3/9/2001	Robert Joy	Added reference to "periodic training"

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1. Resource Management - Tape

1.1 Overview

The Tape Management Policy has been developed to ensure consistent management of tape consumption on the Medi-Cal project. Without Management, tape usage has a tendency to grow rapidly and frequently at uncontrollable rates. The costs of uncontrolled tape usage add up quickly and unnecessarily.

The diagram in Section 1.8.1 below shows the overall process flow of the tape management process.

1.2 Purpose

It is the policy of the MEDSTAT Project Management team to control the cost of tape consumption through on-going measurement, management and forecasting.

The Resource Management Policy for Tapes describes a process for managing tape usage. This document contains standards to guide the project team regarding how long to retain categories of project data. Project requirements for long term storage of project-related data and software drive these standards.

The process of managing tape consumption is a three-part process:
1. Inventory/reporting
2. Cleanup
3. Forecasting

These steps are described in detail in the procedure section of this document. This policy is entered once per month.

The purpose of this policy is to set practical guidelines for project team members to appropriately set retention periods for data stored on tape. Proper retention settings can be the single largest determining factor in managing tape consumption. Providing guidelines and managing to those guidelines is essential to controlling tape utilization and ultimately the budget for tape procurement.

A secondary purpose for this policy relates to managing aging data and cleaning up unnecessary data. The procedures established herein enable the Operations Team to report on tape usage, cleanup as necessary, and forecast future usage.

1.3 Scope

This policy covers tape consumption on the IBM OS/390 S4 system.

1.4 Responsibility and Enforcement

The Core Team is responsible to enforce tape consumption standards (such as the setting of dataset retention periods) for their team members.

The Operations Manager is responsible for ensuring the entire project team is following this policy. When issues arise in tape consumption by a member other then the Operations Team, the Operations Manager will notify the appropriate team manager about the issue. The Operations Manager will follow-up on any issues related to enforcement of this policy.

The Operations Manager is also responsible to ensure the procedures for reporting, cleanup, and forecasting are being executed on a timely basis and that the outcome for each section of this procedure is as stated.

Production of reports and timely notification of consumption issues are the key indicators of policy compliance. Monitoring these key indicators is the responsibility of the Operations Manager.

1.5 General Considerations

See Section 1.2 (Purpose) above

1.6 Skill Requirements

Anyone using this policy should be familiar with Mainframe Tape storage systems and tape density (e.g., IBM 3490).

1.7 Entry Criteria

This process is entered each month when tape usage is assessed and cleanup is performed.

1.8 Procedure Steps

This section describes the flow chart found in section 1.8.1 of this document.

1) Create a detailed report of all datasets currently residing on tape. This is accomplished by executing jobs HMUU7161 (scratch tape rpt) and HMUU7171 (TMS cataloged tape rpt) manually outside of the ESP environment. It is to be run on the second Tuesday of every month. Analysis will be performed for the prior month. This report lists every data set known to the Tape Management System (TMS) for the S4 system. This includes cataloged tapes and scratch tapes.
2) Create a preliminary report totaling all tapes used by subcategory. The detailed report is made up of a list of Volume Serial Number, Expire Date, Last Use Date, and Data set Name. This step is concerned with the data set name. Each data set name High Level Qualifier

(HLQ) can be mapped to a subcategory. HLQs that being with FDR are mapped to the FDR Subcategory in the preliminary report. In some cases, the second or third level qualifiers are needed to determine which subcategory. For example, the data set name "HM.HMPTRE.BLD41.DSQP1" is counted as part of the Production, TB4.1 subcategory. Another example is the data set name "HM.HCP7010.RMD400.PHASE2C.FFS3.DEC96.SEP97", which is counted toward the State Data subcategory.

3) The preliminary report totals are created by counting the number of datasets related to a subcategory. The team member will determine the mapping of datasets to subcategories using the high level qualifiers in the data set name as described above. There is currently no documentation describing the mapping. The high level qualifiers on the S4 system are ever changing. Creating a document with the mappings would require a high level of maintenance. The Operations staff currently disseminates the mapping information to other staff members on an informal basis. Please see the Subject Examples section of this document for an example of the Preliminary Actual Tape Consumption report. This example contains all of the subcategories mentioned in the above description.

4) Once the preliminary report is complete, the Operations Team produces the final actual tape utilization report. The following categories are included in the actual report:
   a) FDR – Full Weekly
   b) FDR – Incremental
   c) DB2 Backups
   d) DataScan builds
   e) Development testing
   f) SMF data
   g) Image Copies
   h) Sys Image Copies
   i) State Data
   j) Scratch

   The final actual report is created by totaling the subcategories in the preliminary report and rolling them up into the totals for the categories listed above. This version of the report is then published for project management.

5) Perform cleanup analysis. In this step, the Operations Team reviews the actual reports and certain categories of the detailed report. They will target certain high level qualifiers as potential deletion candidates. For example, the individual user datasets (typically, those of Developers) are often good candidates for deletion. The development team will quite often have a need to create temporary datasets that are no longer needed. Often, due to the size of the datasets they must use in testing, these temporary datasets take up space when they have outlived their usefulness. The analysis step highlights these common areas of "dead data" and enables the Operations Team to communicate a request to the rest of the project team about performing cleanup.

6) Once the analysis in the previous step is complete, the Operations Team will communicate their findings to the Development Team. The purpose of the communication is to request the

Development team to clean up particular datasets that are unnecessarily using tapes. The Development Team will then respond in one of three ways:

i) They will indicate that the data set is still needed
ii) They will delete the data set
iii) They will give the Operations Team permission to delete the data et on their behalf

7) If tape availability starts to become critical, the Operations Team may need to delete older database environments in order to support the build or update for a more current database. When these situations arise, the Operations Team will notify the appropriate members of the Core Team for a decision on deleting the older data in order to free up tapes for current work.

8) If the need arises to delete system level datasets, the Operations Team will consult with the Operations Manager and (if necessary) HHSDC about deleting system level data. If tape availability becomes urgent, the Operations Team has the option of suspending FDR copies for a period of time to free up available tapes. This option shall only be used with a Test report and with the permission of the Operations Manager.

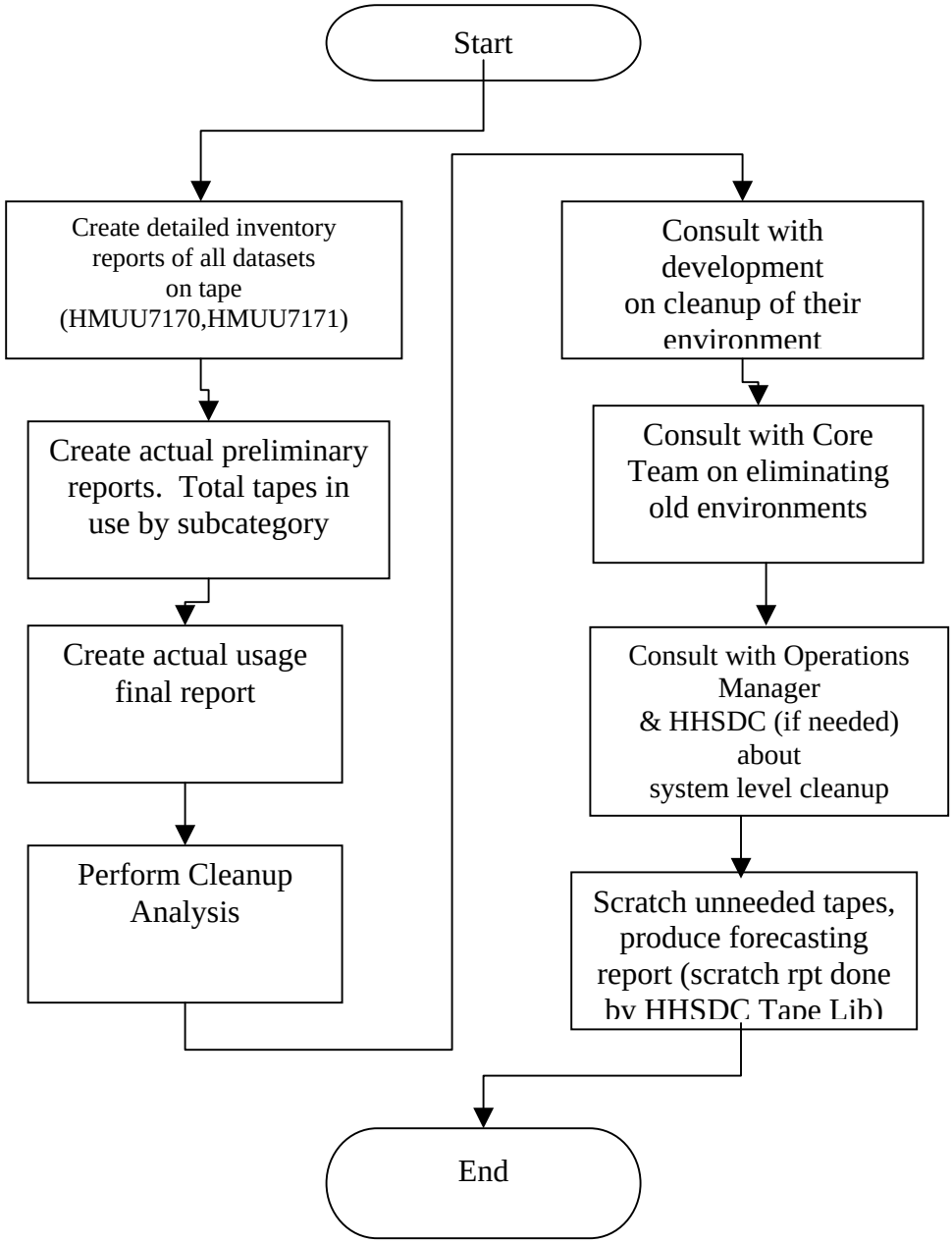
9) Once all of the appropriate parties have communicated back to the Operation Team about what data can be deleted, the Operations Team will then delete all agreed upon datasets. The Operations Team must pay special attention when deleting GDG datasets from tape. They can not rely upon the TMS system to scratch GDG datasets even if the retention period has expired. GDGs are a common source of unnecessary tape usage because TMS can not delete them when they have expired. When deleting a GDG from tape, the Operations Team must ensure that all versions of the data set are deleted, and then the GDG is un-cataloged in both TMS and OS/390. After the cleanup effort is complete, the Actual Tape Usage report is updated to reflect tapes that were freed by the cleanup process.

10) Upon completion of the cleanup, the Operation Team will calculate the tapes needed for builds and updates in the next month. These calculations are performed based on the estimated data volumes for each build and update. These numbers are then updated in the forecast report and published for the Core Team.

The following guidelines have been established for data set retention period:

1. State supplied data is copied and set to permanent retention
2. Out-claim, Out-drug, and drop data have a 6 month retention period
3. Image copies have a 90 day retention period, unless they are retained as part of a special case previous fiscal year backup, these are retained permanently.
4. All others default to a 10 day retention period

1.8.1 Tape Management--Flowchart



1.9 Exit Criteria

This process is exited upon successful production of tape utilization reports and forecast reports.

1.10 Forms and Subject Examples

The following spreadsheet is an example of the preliminary actual tape utilization report.

	Feb-98	Mar-98	Apr-98	May-98	Jun-98	Jul-98	Aug-98	Sep-98
DB2								
Platinum	5	7	7	7	7	7	7	8
Image	9	16	20	13	7	7	6	8
Archive	4	20	96	222	142	110	26	26
Image Copy	12	7	9	16	17	17	12	16
FDR								
Weekly	63	200	304	333	397	351	418	436
Incre.	33	88	114	112	83	107	48	130
Developers								
Misc.		19	32	5	49	47	49	48
Carolyn	1	1	1	1	1	1	1	1
Cecilia				16	4	4	4	4
Dominique	22	16	44	51	48	48	5	5
Eric				12	6	2	1	
Phil	22	4	6	1	18	19	12	32
Production								
Misc.	122	8		30		4	6	7
TB 1.1								
TB 1.2								
TB 1.3	13							
TB 1.4		82						
TB 1.4A								
TB 1.4B								
TB 1.4C			39	42	30	30		
TB 1.4D			28	1	21	21	21	

TB 1.4E					58	46	46	42	42
TB 1.4F						2	2		
TB 1.4K					2				
TB 2.1		29							
TB 2.2		24	19						
TB.2.3		75	185	168	161	149	28	5	5
TB 2.3A							3		
TB 2.4					195	191	175	155	157
TB 2.5							252	184	166
TB 2.5CHK									1
TB 2.5.X									4
TB 2.5.1									
MAR98P2					15	81	57	57	43
APR98P2						21			
JUN98P2									59
TB 3.0A					68	41	41	38	38
TB 3.0B						2	66	36	36
MAY98P3U							1		
JUN98P3U							1		
JUL98P3U									
AUG98P3U									1
TB 3.T									
TB 3.T.1									
TB 3.X							1	1	1
TB 3.1								181	159
TB 3.2									
TB 3.3									
TB 3.4									
TB 4.0									
TB 4.1									
TB 4.2									
TB 4.3									
t 3.3									
System									
Misc SMF		6	12	6	6	6	6	6	6
SMFALL		19	24						
SMFDATA		19	24	8	17	25	28	35	38
ICS on tape		1	1	1	1	1	1	1	1
State									
State Data		34	63	82	90	167	168	182	198
TOTAL USED		513	796	965	1475	1562	1651	1539	1676

1.11 Reference Material

N/A

1.12 History

Established/Revision Date	Established/Revised By	Change Description
4/5/2000	John Mulcahy	Updated to new process template
12/31/98	Ron Carr	Policy/Process Established
6/1/2001	Todd Jackman	Changed from an Ongoing Process to a Monthly Process.

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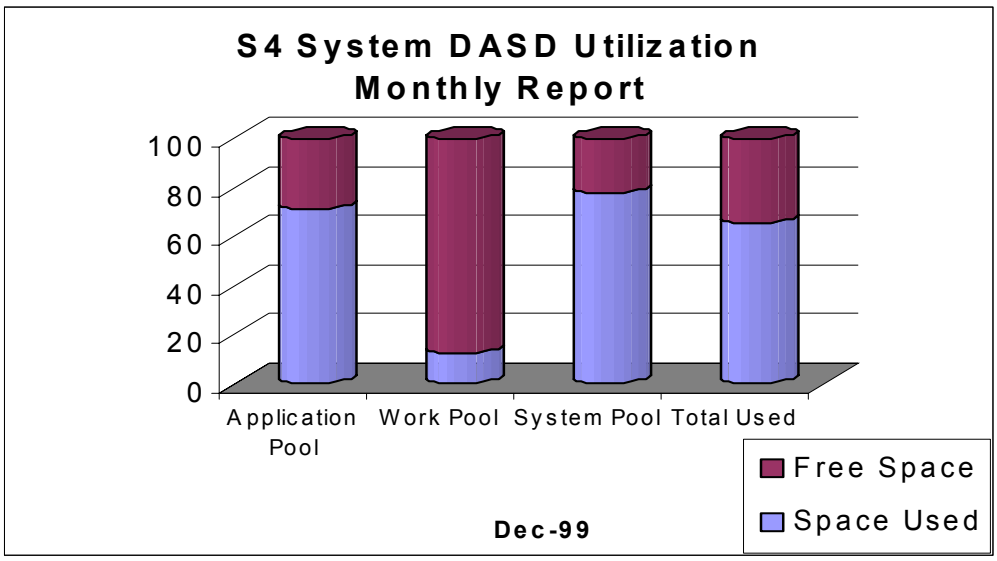
1. Resource Management - DASD

1.1 Overview

This procedure covers the creation of DASD management reports for the IBM S4 mainframe system. The DASD is divided into three pools: 1) System, 2) Application, and 3) Work.

1.2 Purpose

The DASD report is generated on an as needed basis. Two reports are generated. One shows the DASD utilization for a single month. The figure embedded in this section is an example of the monthly chart. A second chart is created to show the trend of DASD usage over the course of a year. The Operations team and the Core Team review both of these reports.



1.3 Scope

This process feeds data to the Dashboard Reporting set each month. It also serves as a method to monitor the overall usage of the System DASD on the S4S4 MVS Mainframe Server.

1.4 Responsibility and Enforcement

The Operations support staff are responsible for executing the job and generating the report each month. The Operations manager, in conjunction with staff, is responsible for the review of the results and any recommendations to resolve issues.

1.5 General Considerations

There are no general considerations for this process.

1.6 Skill Requirements

The user of this process should be an operations staff member that is aware of the DASD naming convention used on the account. The user should also be familiar with data entry on spreadsheets and chart creation in MS Excel.

1.7 Entry Criteria

This process is entered each month as the Dashboard Report set is created.

1.8 Procedure Steps

1. Job HMUU7151 is executed on the first business day of each month. This job generates a report of all DASD volumes along with file types stored upon them (e.g., system, PERMDA, SYSDA). The data from this report is then categorized into the three types of DASD represented on the report: 1) System, 2) Application, and 3) Work.
2. These values are entered into the DASD master spreadsheet stored in CA_MED\Operations\Reports\DASD Monthly.xls with a new tab sheet created for the given month.
3. The stacked bar graph in the document is updated to use the added tab as its source data
4. The chart and data are reviewed to determine if sufficient DASD space remains to cover build/update and user disk storage needs.
5. The graph is included in the monthly set of dashboard reports, reviewed by the Core Team and presented at the 2nd project status meeting of the month.
6. The Operations Manager recommends changes, if appropriate, to the allocated pools, and discusses these changes through the IT and Change Control process.

1.9 Exit Criteria

This process is exited at the time that the DASD Usage reports are completed and reviewed by the Operations staff

1.9.1 Exit Exception Criteria

N/A

1.9.2 Exit Exception Handling

N/A

1.10 Forms and Subject Examples

N/A

1.11 Reference Material

N/A

1.12 Policy History

Established/Revision Date	Established/Revised By	Change Description
4/6/2000	John Mulcahy	Updated to new process template
3/31/98	Todd Jackman	Policy/Process Established

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1. Operations Issue Log

1.1 Overview

Logging problems in the production environment is an essential step in creating an environment where a standard of high availability is achieved and maintained over a long period of time. Logging the information will enable the Operations Team to categorize common problems and create trends in categories over a period of time. In most circumstances, there are common issues that have resulted in the categories of problems logged into the problem log. By monitoring and categorizing the problems, the Operations Team can correct or prevent problems from occurring in the future. The Operations Issue Log process flow is a summary of the problem logging process.

Operations Execution Problem Log Process Flow

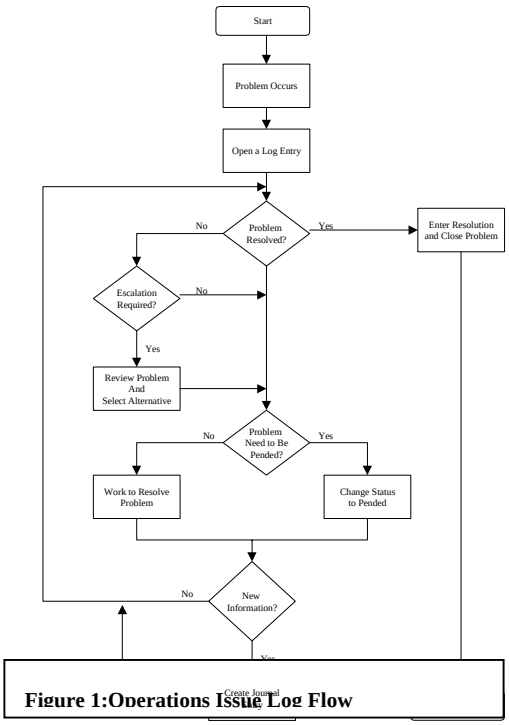


Figure 1:Operations Issue Log Flow

The creation of this log also fulfills a process outlined in the Maintenance and Administration (M&A) Deliverable describing the logging of problems in the production environment. This procedure is intended to incorporate and expand upon the description in the M&A deliverable and it supercedes the requirements outlined therein.

1.2 Purpose

The purpose of this document is to maximize the production system availability through analysis of failures in the production environment.

1.3 Scope

This document will be used by any project team member responsible for the database build and update failures within the pre-production and production environment—S4 and NT.

1.4 Responsibility and Enforcement

All Operations Team members that are involved in resolving a production failure must ensure the log entry is complete including all pertinent problem resolution information.

Task	Role Responsibility	Comments
Create log entries	Anyone	The Operations Production Control position is responsible for the oversight of the process and the tool. The individual's most often creating entries will be those responsible for executing the build or update of DataScan, PV, PMW and Briefing Book.
Monitor Log for Completeness	Production Control	New entries will be reviewed in the regular Build/Update Check Point Meetings.
Perform root cause analysis	Production Control	Production Control leads the task and assigns responsibility as necessary.
Create corrective action plans	Project Management	The manager who's area will be primarily responsible to resolve the root problem.
Creation of IRs	Anyone	
Maintenance and Administration of the Access Database	Production Control	Under the control of the Production Control position within the Operations Team.
Maintenance of this procedure	Production Control	

1.5 General Considerations

- The Operations Manager, through the individual filling of the senior Operations Production Control position, is responsible for ensuring build and update failures are logged and resolved.
- The Operations Team maintains the Operations Execution Tool.
- Operations Production Control is responsible for the analysis of the failure data.
- A summary report of new issues is produced on a weekly basis and published to the members of the project management team.

- Operations Production Control will update the log or seek additional consensus from the Operations Team. In any case, the time to process the request should not exceed one business day.
- Issues may result in an IR and be tracked through the Change Control process.

1.6 Skill Requirements

Individuals involved in this process must be knowledgeable in MS Access, JCL and TSO.

1.7 Entry Criteria

The occurrence of any operations failure during a build or update of DataScan, Panorama View, Performance Measurement Workstation (PMW) and Briefing Book initiates this procedure.

1.8 Procedure Steps

This procedure describes the information required for completing a detailed entry in the Operations Execution Log. The detailed steps for filling in a log entry is located in the Procedure Steps section below.

The Log is actually a Microsoft Access database. The location of the database is "W:\ca_med\operations\operation tools\Oper_Execution.MDB." Enter the data entry portion of the tool by clicking on Enter Operations Execution button on the main menu. Once inside the log, use the detailed information under the Procedure Steps section below to create or update a log entry. Please see the Samples section of this document for a screen shot of the Access Database.

When problems occur during non business hours, it is likely that an individual may be working from home and they will not have access to the automated log at the MEDSTAT Project Office. In these cases, a paper log form has been developed to enable the logging of problems when the automated log is not available. Please see a sample of the paper log in the Forms section of this procedure. When a paper log must be used in lieu of the automated log, it is the responsibility of the person filling out the paper log to enter it into the automated database at the next convenient opportunity. However, if more than two business days will pass before the person will have an opportunity to enter it into the automated log, the person must contact the Operations Production Control to ensure the entry is made within two business days of the problem occurring.

The following table contains the steps for this procedure. Use the following steps to enter an issue into the Execution Log.

Step Number	Step Description
1.	**Problem Status –** This is the current status of the problem. Possible values are: • Open – Problem that is currently being worked for resolution. Frequent updates are made in the journal entry • Close – The problem has been resolved • Pending – The problem is waiting on an external resource to respond before resolution can be completed (A vendor waiting on a part is one example)
2.	**Entry Date/Time** – The date and time you are entering the problem into the database. The date and time the problem actually occurred is entered later.
3.	**Name –** The name of the person logging the problem.
4.	**Application Name –** The name of the application (software) where the problem is occurring.
5.	**Object Name –** The component name where the problem is occurring. For example, if the problem was occurring in a program module within Data Scan, you would enter that name in this field.
6.	**Failed Date and time –** The date and time the problem occurred (Not the time of the entry). Sometimes entry into the database is made several hours after problem occurred.
7.	**Process Name –** The process name for Panorama View and Performance Measurement Workstation (PMW)
8.	**Error Code –** The error code for the failing job
9.	**Software Version Number –** The version of the software component related to the failing job. Enter the version number of the Application name identified above.
10.	**Database Build** – The database version being used by the failing job
11.	**Error Category** – Enter the general category of failure. Values to select from are: • Software Problem – The software doesn't operate according to supporting documentation, including JCL. • Resource Problem – The job failed due to lack of a DB2 resource • Design Problem – The software operated according to the supporting documentation but a design deficiency exists. The design deficiency may not always result in a directly observable operational symptom, but possesses the potential for creating further problems (i.e. intermittent problem) • Documentation Problem – The software does not operate according to supporting documentation but the software operation is correct. • JCL – The job failed with a JCL Error

Step Number	Step Description
	• Info – Non issue information only • Tape – The job failed due to tape or tape drive error • Space – The job failed due to lack of space
12.	**Record ID –** This is a key field that is assigned automatically by the database. Do not enter data into this field.
13.	**Problem Description** – A complete description of the problem. This should include error message numbers.
14.	**Journal Status –** Entries should be made in this field during the problem resolution. The journal entries should include the date and time of the entry and relevant information about what troubleshooting has been done and the current status. If vendors are involved, this information should also be included. Logging this information is important to aid in future problem solving.
15.	**Fix Date/Time –** Enter the date and time the problem was resolved.
16.	**Resolution Description –** Enter a complete description of the ultimate resolution of the problem. If there were extenuating circumstances that contributed to the problem, document them in the journal notes. If other, distinctive problems were found during resolution of this problem, document them as separate problems in this log.

1.9 Exit Criteria

This process is exited when the log entry is complete including resolution information.

1.9.1 Exit Exception Criteria

There are no exceptions to the exit criteria. The log entry is either complete or in progress.

1.9.2 Exit Exception Handling

N/A

1.10 Forms

Operation Execution Report — Manual Log

Problem Status:	_____
Entry Date/Time:	_____
Name:	_____
Application Name:	_____
Object Name:	_____
Failed Date/Time:	_____
Process Name:	_____
Error Code:	_____
Software Version No:	_____
Database Build:	_____
Error Category:	_____

Problem Description:

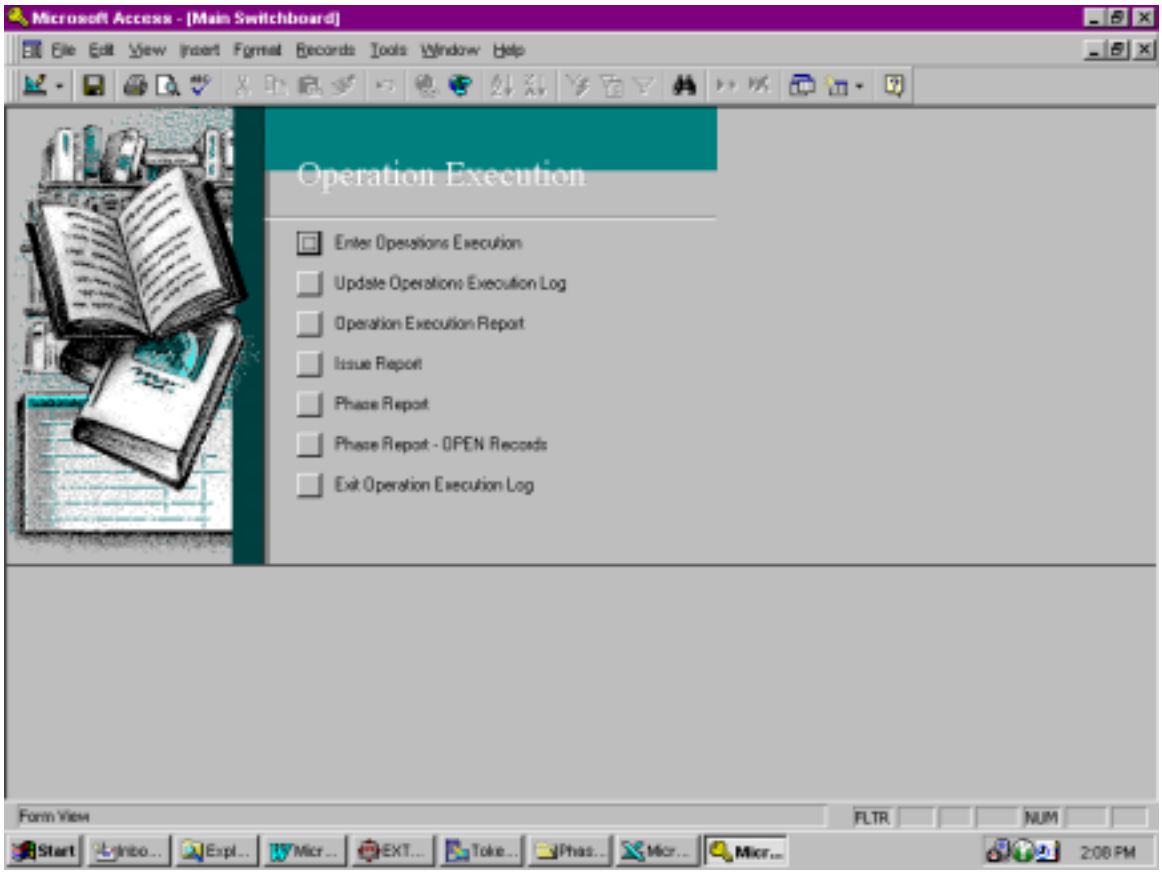
Journal Status:

Fix Date/Time: _____

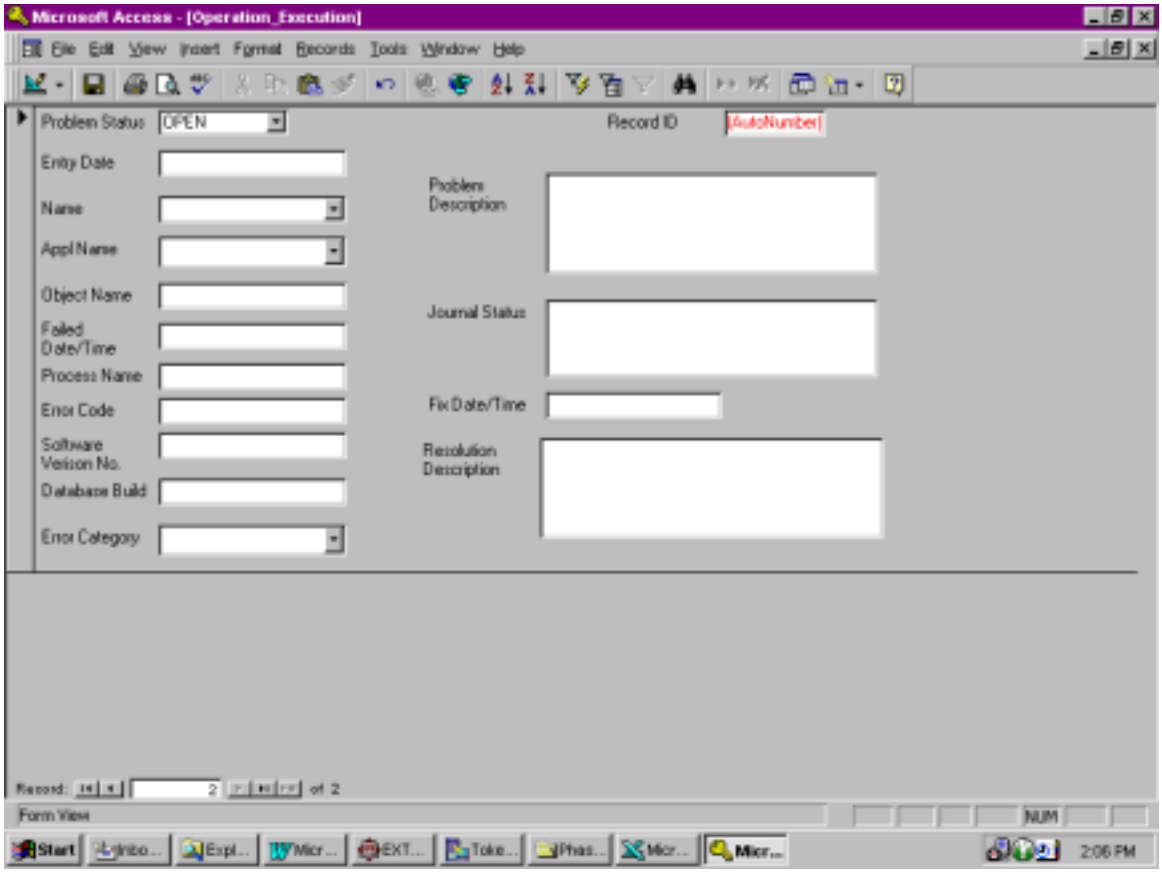
Resolution:

1.11 Forms and Subject Examples

Operations Issue Log Main Menu Screen



Operations Issue Log Data Entry Screen



1.12 Reference Material

1.13 Policy History

Established/Revision Date	Established/Revised By	Change Description
10/01/98	Barbera Bridgewater	Established
04/05/99	Todd Jackman	Updated for General Release.
4/10/00	Natalie Wyatt	Update format and MS Access screen changes